

WHAT IS CLAIMED IS:

1. A method in a wireless communication system for a mobile terminal to
5 transition from a dual mode, in which a packet switched connection and circuit
switched connection are used together, to a single mode in which packets are
transferred, comprising the steps of:
 receiving at least minimum system information necessary to perform the
transition in an uninterrupted manner, wherein said system information is broadcast to
10 the mobile terminal on a regular basis, and is also sent to the mobile terminal partly or
entirely by point-to-point transfer if a piece of said minimum system information is
missing, and
 employing the information to transition from the dual mode to the single mode
in the uninterrupted manner.
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2. The method of claim 1, wherein the dual mode corresponds to a Class-A mode,
and the single mode corresponds to a Class-B or Class-C mode.
3. The method of claim 2, wherein the system information includes a packet system
20 information message that is automatically broadcast to the mobile terminal at regular
intervals to furnish updated system information via a packet associated control channel
(PACCH).
4. The method of claim 3, wherein the packet system information message is sent
25 before a channel for the circuit switched connection is released.
5. The method of claim 1, further comprising the steps of:
 initiating or asking for disconnection of the circuit switched connection before a
channel used for the circuit switched connection is released, and
30 obtaining at least some of the information after initiating or asking for the
disconnection, but before the channel is released.

6. The method of claim 5, wherein the at least some of the information in the obtaining step is sent to the mobile terminal using a packet serving cell data message, via a packet associated control channel (PACCH).
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7. The method of claim 5, further comprising the step of sending an acknowledgment from the mobile terminal that all of the minimum system information was obtained, and wherein the channel is released after the acknowledgment is received.
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8. The method of claim 1, further comprising the step of transitioning to the single mode in an interrupted manner, absent an acknowledgment during a certain time period from the mobile terminal that all of the minimum system information was obtained.
9. The method of claim 8, wherein the interrupted manner includes, and the
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- uninterrupted manner excludes, the steps of requesting a channel, having a channel assigned, asking for a packet resource, and obtaining a packet uplink assignment.
10. The method of claim 1, wherein the mobile terminal receives the point-to-point transfer via packet serving cell data after initiating or asking for disconnection of the
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- circuit switched connection, but before release of a channel supporting the connection.
11. The method of claim 5, wherein a packet SI status, packet PSI status, or another message from the mobile terminal includes a field indicating that a location area update or combined routing area update will happen when the circuit switched connection ends
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- and packet and circuit switched resources are released.
12. The method of claim 7, wherein a packet SI status, packet PSI status, or another message from the mobile terminal comprises the acknowledgment.
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13. The method of claim 11, wherein the field is a circuit switch procedure pending bit.

14. A computer readable medium encoded with a software data structure sufficient for performing the method of claim 1.

15. A mobile terminal for transitioning in a wireless communication system from a dual mode wherein a packet switched connection and circuit switched connection are used together, to a single mode wherein packets are transferred, comprising:

a transceiver, for sending toward a processing unit at least one minimum system information signal indicative of at least minimum system information necessary to perform the transition in an uninterrupted manner; and

the processing unit, responsive to the at least one minimum system information signal, for employing the information to transition from the dual mode to the single mode in the uninterrupted manner,

wherein said at least one minimum system information signal is broadcast to the mobile terminal on a regular basis, and is also sent to the mobile terminal partly or entirely by point-to-point transfer if a piece of said minimum system information is missing.

16. The mobile terminal of claim 15, further comprising:

a packet switch device, for processing and passing an uninterrupted data signal between the processing unit and the transceiver; and

a circuit switch device, for processing and passing a voice signal between the processing unit and the transceiver, the voice signal being discontinued while the data signal is uninterrupted.

17. The mobile terminal of claim 15, wherein the dual mode corresponds to a Class-A mode, and the single mode corresponds to a Class-B or Class-C mode.

18. The mobile terminal of claim 17, wherein the system information includes a packet system information message that is automatically broadcast to the mobile terminal at regular intervals to furnish updated system information via a packet associated control channel (PACCH).

19. The mobile terminal of claim 18, wherein the packet system information message is sent before disconnecting the circuit switched connection.
- 5 20. The mobile terminal of claim 19, wherein the processing unit is for providing an acknowledge signal to the transceiver, during a certain time period after providing a disconnect signal requesting disconnection of the circuit switched connection, if the mobile terminal has all of the minimum information.
- 10 21. The mobile terminal of claim 20, wherein the transceiver is for providing additional information toward the processing unit contingent on prior absence of the acknowledge signal.
- 15 22. The mobile terminal of claim 20, wherein the mobile terminal is for initiating the transition to the single mode in an interrupted manner, absent the acknowledge signal during the certain time period.
23. The mobile terminal of claim 20, wherein the acknowledge signal includes a field indicating that a location area update or combined routing area update will happen
20 when the circuit switched connection ends and packet and circuit switched resources are released.
24. The mobile terminal of claim 23, wherein the field is a circuit switched procedure pending bit.
- 25 25. A system for transitioning in a wireless communication system from a dual mode wherein a packet switched connection and circuit switched connection are used together, to a single mode wherein packets are transferred, comprising:
a base station, for providing at least one minimum system information signal
30 indicative of at least minimum information necessary to perform the transition in an uninterrupted manner; and

a mobile terminal, responsive to the at least one minimum system information signal, for employing the information to transition from the dual mode to the single mode in the uninterrupted manner,

5 wherein said at least one minimum system information signal is broadcast to the mobile terminal on a regular basis, and is also sent to the mobile terminal partly or entirely by point-to-point transfer if a piece of said minimum system information is missing.

26. The system of claim 25, wherein the at least one minimum system information
10 signal includes a periodically updated signal broadcast via a packet associated control channel (PACCH).